



# National Transportation Safety Board Aviation Accident Final Report

<b>Location:</b>	SAN JUAN, PR	<b>Accident Number:</b>	MIA95LA086A
<b>Date &amp; Time:</b>	03/12/1995, 1305 AST	<b>Registration:</b>	N724DA
<b>Aircraft:</b>	LOCKHEED L-1011-385	<b>Aircraft Damage:</b>	Minor
<b>Defining Event:</b>		<b>Injuries:</b>	313 None
<b>Flight Conducted Under:</b>	Part 121: Air Carrier - Scheduled		

## Analysis

The tug operator was cleared by the dispatching agent to commence pushback procedures at a departure gate on a Delta L- 1011. The lead wing walker observed an American SD3-60 taxiing to the ramp and signaled the tug operator to terminate the pushback, which was complied with. The tug operator observed the SD3-60 taxi past the L-1011, and commenced pushback procedures without clearance from the dispatching agent. The right wing tip of the L-1011 collided with the rudder of the SD3-60. Delta Airlines SOP states, the tug operator is responsible for following the signals of the dispatching agent.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: **THE FAILURE OF THE TUG OPERATOR TO FOLLOW CORRECT PUSHBACK PROCEDURES BY COMMENCING PUSHBACK WITHOUT CLEARANCE, RESULTING IN AN ON-GROUND COLLISION WITH ANOTHER AIRPLANE.**

## Findings

Occurrence #1: COLLISION BETWEEN AIRCRAFT (OTHER THAN MIDAIR)  
Phase of Operation: TAXI - PUSHBACK/TOW

### Findings

1. (C) PROCEDURES/DIRECTIVES - NOT FOLLOWED - GROUND PERSONNEL

## Factual Information

On March 12, 1995, about 1305 Atlantic standard time, a Lockheed L-1011, N724DA, flight number 189, experienced an on-ground collision during pushback at the Luis Munoz Marin International Airport, San Juan, Puerto Rico, with a Short SD3-60, N376MQ. The L-1011 is registered to Delta Airlines Inc., operating as a 14 CFR Part 121 scheduled domestic passenger flight. The Short SD3-60, is registered to Security Pacific esquire, operating as a 14 CFR Part 121 scheduled domestic passenger flight, by Executive Airlines Inc., doing business as American Eagle flight 5539. Visual meteorological conditions prevailed and an IFR flight plan was filed for both airplanes. The Delta Airlines airplane sustained minor damage and the American Eagle airplane sustained substantial damage. The Delta Airlines airline transport pilot-in-command, airline transport pilot first officer, flight engineer, 8 flight attendants, and 302 passengers were not injured. The American Eagle airline transport pilot-in-command, commercial pilot first officer, 1 flight attendant and 23 passengers were not injured. The Delta Airlines flight was originating at San Juan, Puerto Rico, and the American Eagle flight originated from St. Thomas, U.S. Virgin Islands, about 31 minutes before the accident.

The lead left wingman, for Delta Airlines flight 189 stated, they had just commenced pushback from gate 33 when he observed an American Eagle flight taxiing behind flight 189. He signaled the tug operator to stop the pushback. The American Eagle flight taxied past flight 189, stopped, started taxiing again, and stopped abruptly. The tug operator commenced pushback procedures without receiving instructions from the dispatching agent. The wingman signaled the tug operator to stop, however; the right wing tip of Delta flight 189 collided with the rudder of American Eagle flight 5539 before the pushback was stopped.

Review of ATC transcripts from the time period of 1255:00 to 1308:00 revealed American eagle flight 539 requested and received permission to taxi from runway 10 to the ramp at 1300:12. At 1300:40, Delta Airlines flight 189 requested pushback clearance from ground control, and was approved at 1300:43. American Eagle flight 539 advised ground control "that delta aircraft just hit us on our tail pushing back." Delta flight 189 requested and received permission from ground control to return to the departure gate at 1303:37.

The tug operator was interviewed by the FAA on March 12, 1995. The tug operator stated upon receiving initial clearance he began pushback operations, and stopped the pushback when he observed an American Eagle SD3-60 taxiing behind the aircraft from east to west. When he observed the SD3-60 on the west side of the L-1011, he resumed pushback operations, without receiving clearance from the dispatching agent.

Delta Airlines SOP states, the dispatching ramp agent is responsible for directing the movement of aircraft. It also states the dispatching ramp agent is responsible for observing obstruction clearance and executing the appropriate ramp signals to the tug operator. It further states the tug operator is responsible for following the signals of the dispatching ramp agent.

## Pilot Information

<b>Certificate:</b>	Airline Transport; Flight Engineer	<b>Age:</b>	54, Male
<b>Airplane Rating(s):</b>	Multi-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last Medical Exam:</b>	03/07/1995
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	10000 hours (Total, all aircraft), 547 hours (Total, this make and model), 10 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	LOCKHEED	<b>Registration:</b>	N724DA
<b>Model/Series:</b>	L-1011-385 L-1011-385	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Transport	<b>Serial Number:</b>	L1011385115
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	305
<b>Date/Type of Last Inspection:</b>	02/17/1995, Continuous Airworthiness	<b>Certified Max Gross Wt.:</b>	450000 lbs
<b>Time Since Last Inspection:</b>	217 Hours	<b>Engines:</b>	3 Turbo Fan
<b>Airframe Total Time:</b>	58199 Hours	<b>Engine Manufacturer:</b>	Rolls-Royce
<b>ELT:</b>		<b>Engine Model/Series:</b>	RB-211-22B
<b>Registered Owner:</b>	DELTA AIRLINES INC.	<b>Rated Power:</b>	42000 lbs
<b>Operator:</b>	DELTA AIRLINES INC.	<b>Air Carrier Operating Certificate:</b>	Flag carrier (121)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	DALA

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SJU, 10 ft msl	Observation Time:	1253 AST
Distance from Accident Site:	0 Nautical Miles	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 4800 ft agl	Temperature/Dew Point:	28° C / 18° C
Lowest Ceiling:	None / 0 ft agl	Visibility	13 Miles
Wind Speed/Gusts, Direction:	14 knots, 30°	Visibility (RVR):	0 ft
Altimeter Setting:	30 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	IFR
Destination:	ATLANTA, GA (ATL)	Type of Clearance:	
Departure Time:	0000	Type of Airspace:	Class E

## Airport Information

Airport:	LUIS MUNOZ MARIN INTL. (SJU)	Runway Surface Type:	
Airport Elevation:	10 ft	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	11 None	Aircraft Damage:	Minor
Passenger Injuries:	302 None	Aircraft Fire:	Unknown
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	313 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	CARROL A SMITH	Adopted Date:	06/19/1995
Additional Participating Persons:	ROBERTO ECHEVARRIA; SAN JUAN, PR		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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